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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,331	06/09/2000	RUDIGER ROPPEL	10191/1321	5174

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EXAMINER

BHATTACHARYA, SAM

ART UNIT	PAPER NUMBER
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2687

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/508,331

Applicant(s)

ROPPEL ET AL.

Examiner

Sam Bhattacharya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 28, 2005 has been entered.

In future communications, the inventors should be indicated as Roppel et al., not Rode et al., since the first-named inventor is Rüdiger Roppel.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 9-10 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai (US 4,531,232) in view of Starkloff et al. (US 4,739,516).

As to claim 9, Figure 4 in Sakurai shows a receiver (12) ("the radio receiver 12 comprises a tuner circuit 13 for selecting a desired radio wave signal from the radio wave signals received by the antenna element 11, a high-frequency amplifier circuit 19 for amplifying the reception signal selected by the tuner circuit 13, and an audio signal converter 14" (Col. 3, line 65 to Col. 4, line 2)) comprising:

at least one electrical component (15) ("the tuner circuit 13 and the audio signal converter 14 are controlled by control signals from a control unit 15" (Col. 4, lines 6-8));

an antenna (11) having a base (20) (“the antenna element 11 is directly connected to an input end of a tuner circuit 13 of a radio receiver 12, without using a coaxial cable” (Col. 3, lines 63-65). “The radio receiver 12 and the antenna extension/retraction mechanism are mounted in a single casing and constitute a reception section 20” (Col. 4, lines 28-30). See also Figure 5); and

a tuner (13) connected to the antenna (11), the tuner being situated in the base of the antenna (“the antenna element 11 is directly connected to an input end of a tuner circuit 13 of a radio receiver 12, without using a coaxial cable” (Col. 3, lines 63-65). “The radio receiver 12 and the antenna extension/retraction mechanism are mounted in a single casing and constitute a reception section 20” (Col. 4, lines 28-30). See also Figure 5), the tuner being spatially separated from the at least one electrical component, the tuner having at least one terminal for connecting the tuner to at least one of: (a) the at least one electrical component (15) (“the tuner circuit 13 and the audio signal converter 14 are controlled by control signals from a control unit 15” (Col. 4, lines 6-8)), and (b) at least one further component external to the receiver (16) (“the control unit 15, in turn, receives tuning, volume and tone operating signals from an operation section 16 which is separated from the radio receiver 12” (Col. 4, lines 12-15)), wherein the base includes a surface for mounting the base to an exterior surface of a motor vehicle (see Col. 4, lines 55-63 and Figure 6. The housing 29 is the base that includes a surface and thus has the structural elements as cited in the claim. In Figure 6 of the reference, the housing 29 is shown to be mounted under the car body 21 (similar to an embodiment described on page 3, lines 25-28 of the applicant specification). It is inherent that housing 29 can also functionally be mounted to an exterior surface of a motor vehicle).

Sakurai fails to disclose a receiver having a base with only one hollow area and an antenna connected to the base. However, Starkloff et al. disclose a tuned antenna assembly including a base 14 with only one hollow area and an antenna 12 connected to the base. Moreover, tuner 44 is located in the base as well. See FIGS. 1, 2 and 6, and col. 2, lines 28-30 and lines 50-60. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the receiver arrangement of Sakurai by including a base with only one hollow area that houses various components, as taught by Starkloff et al. in order to conserve space in the receiver arrangement.

As to claims 10 and 16, the Sakurai reference discloses the receiver is a radio receiver for the motor vehicle ("the present invention relates to a radio receiver apparatus mounted in a vehicle such as a passenger car" (Col. 1, lines 6-7)).

As to claim 13, the Sakurai reference discloses the receiver according to claim 9, wherein the at least one electrical component includes an operator control, the tuner being connected to the operator control via the at least one terminal ("the tuner circuit 13 and the audio signal converter 14 are controlled by control signals from a control unit 15" (Col. 4, lines 6-8). "The control unit 15, in turn, receives tuning, volume and tone operating signals from an operation section 16 which is separated from the radio receiver 12. These operating signals and so on correspond to corresponding control knobs and buttons 161, 162, ..." (Col. 4, lines 12-17)).

As to claim 14, the Sakurai reference discloses the receiver according to claim 9, wherein the tuner has a further terminal for transmitting useful data ("the radio receiver 12 comprises a tuner circuit 13 for selecting a desired radio wave signal from the radio wave signals received by the antenna element 11, a high-frequency amplifier circuit 19 for amplifying the reception signal

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selected by the tuner circuit 13, and an audio signal converter 14” (Col. 3, line 65 to Col. 4, line 2)), wherein the at least one electrical component includes an operator control, and wherein the further terminal connects the tuner to the operator control (“the tuner circuit 13 and the audio signal converter 14 are controlled by control signals from a control unit 15” (Col. 4, lines 6-8). “The control unit 15, in turn, receives tuning, volume and tone operating signals from an operation section 16 which is separated from the radio receiver 12. These operating signals and so on correspond to corresponding control knobs and buttons 161, 162, ...” (Col. 4, lines 12-17)).

As to claim 15, Figure 4 in Sakurai shows a tuner (13) for a receiver (12), the receiver having an antenna (11) and at least one electrical component (15), the antenna having a base (20) provided with a surface for mounting the base to an exterior surface of a motor vehicle (see Col. 4, lines 55-63 and Figure 6. The housing 29 is the base that includes a surface and thus has the structural elements as cited in the claim. In Figure 6 of the reference, the housing 29 is shown to be mounted under the car body 21 (similar to an embodiment described on page 3, lines 25-28 of the applicant specification). It is inherent that housing 29 can also functionally be mounted to an exterior surface of a motor vehicle), the tuner comprising:

a tuner device situated in the base of the antenna (“the antenna element 11 is directly connected to an input end of a tuner circuit 13 of a radio receiver 12, without using a coaxial cable” (Col. 3, lines 63-65). “The radio receiver 12 and the antenna extension/retraction mechanism are mounted in a single casing and constitute a reception section 20” (Col. 4, lines 28-30). See also Figure 5) at a location that is between the antenna and the surface (see Col. 4,

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lines 55-63 and Figure 6. The housing 29 is the base that includes a surface. Metal casing 31 that contains the radio receiver 12 is located between housing 29 and the antenna); and

at least one terminal for connecting the tuner to the at least one electrical component of the receiver (“the tuner circuit 13 and the audio signal converter 14 are controlled by control signals from a control unit 15” (Col. 4, lines 6-8)).

Sakurai fails to disclose a receiver having a base with only one hollow area and an antenna connected to the base. However, Starkloff et al. disclose a tuned antenna assembly including a base 14 with only one hollow area and an antenna 12 connected to the base. Moreover, tuner 44 is located in the base as well. See FIGS. 1, 2 and 6, and col. 2, lines 28-30 and lines 50-60. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the receiver arrangement of Sakurai by including a base with only one hollow area that houses various components, as taught by Starkloff et al. in order to conserve space in the receiver arrangement.

As to claim 17, the Sakurai reference discloses the tuner according to claim 15, wherein the tuner device is detachably situated in the base of the antenna (“the antenna element 11 is directly connected to an input end of a tuner circuit 13 of a radio receiver 12, without using a coaxial cable” (Col. 3, lines 63-65). “The radio receiver 12 and the antenna extension/retraction mechanism are mounted in a single casing and constitute a reception section 20” (Col. 4, lines 28-30). “As shown in FIG. 5, when the antenna element 11 is installed at the trunk portion of a car body 21, the reception section 20 is fixed inside the trunk” (Col. 4, lines 31-33)).

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3. Claims 11-12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai in view of Starkloff et al., and further in view of Reams (U.S. Patent 5,907,793).

As to claim 11, the Sakurai reference discloses the receiver according to claim 9. However, it does not expressly disclose the tuner includes a bus interface and a microcontroller, the bus interface being connected to the microcontroller and to the at least one terminal for transmitting control data. The Reams reference teaches the tuner includes a bus interface and a microcontroller, the bus interface being connected to the microcontroller and to the at least one terminal for transmitting control data ("said RDPU may be built into broadcast radio consumer tuner 13, telephone communications device 30 (wired or cellular) or it may be a separate module either connected to telephone communications device 30 or with built-in transceiver capability" (Col. 16, lines 14-18). "In said integrated data-receiver tuner 13/telephone communications device 30, said RDPU may share any and all RDPU means including power source means, display means (LED 22, 23 or 24 or LCD), response means (pushbutton 22, 23 or 24, key pad or VRU), DTMF signaling system for said response means, automatic dialing means, speech synthesize 28, memory scroll means, mute/attenuation means or other means in said telephone device 30" (Col. 13, lines 8-16). Figure 1 shows the RDPU and its elements).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the receiver of Sakurai wherein the tuner includes a bus interface and a microcontroller, the bus interface being connected to the microcontroller and to the at least one terminal for transmitting control data, as taught by Reams, in order to connect the tuner to a communications device.

As to claim 12, the Sakurai reference discloses the receiver according to claim 9, wherein the tuner includes: a further terminal for transmitting useful data ("the radio receiver 12 comprises a tuner circuit 13 for selecting a desired radio wave signal from the radio wave signals received by the antenna element 11, a high-frequency amplifier circuit 19 for amplifying the reception signal selected by the tuner circuit 13, and an audio signal converter 14" (Col. 3, line 65 to Col. 4, line 2)). However, it does not disclose the tuner includes an encoding circuit; an interface circuit connecting the further terminal to the encoding circuit; and a further tuner component connected to the encoding circuit. The Reams reference teaches the tuner includes an encoding circuit; an interface circuit connecting the further terminal to the encoding circuit; and a further tuner component connected to the encoding circuit ("said RDPU may be built into broadcast radio consumer tuner 13, telephone communications device 30 (wired or cellular) or it may be a separate module either connected to telephone communications device 30 or with built-in transceiver capability" (Col. 16, lines 14-18). Figure 1 shows a tuner component 13 connected to an interface circuit 15 that is connected to a microprocessor 16 that is connected to speech synthesizer 28. "Said VRU response means may be integrated with speech synthesizer 28 to provide an integrated conventional voice input/output system sharing an LPC-based voice coding design. Under this embodiment, LPC encoded voice signals are sent in said at least one source data set by said respective broadcast or cable radio or television data transmission means" (Col. 9, lines 33-39). As interpreted by examiner, speech synthesizer 28 includes an encoding circuit).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the receiver of Sakurai wherein the tuner includes an encoding circuit; an interface circuit connecting the further terminal to the encoding circuit; and a further

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tuner component connected to the encoding circuit, as taught by Reams, in order to encode data being sent by broadcast or cable radio or television data transmission means.

As to claim 18, the Sakurai reference discloses the tuner according to claim 15, further comprising at least one of: means for receiving radio signals (“the radio receiver 12 comprises a tuner circuit 13 for selecting a desired radio wave signal from the radio wave signals received by the antenna element 11, a high-frequency amplifier circuit 19 for amplifying the reception signal selected by the tuner circuit 13, and an audio signal converter 14” (Col. 3, line 65 to Col. 4, line 2)). However, it does not disclose the tuner comprises of means for transmitting and receiving mobile telephone signals; and means for receiving navigational data transmitted according to a GPS standard. The Reams reference teaches the tuner comprises of means for transmitting and receiving mobile telephone signals (“in one preferred embodiment data receiver-tuner 13 (radio or television) is built into telephone communications device 30 – to enhance the value of telephone communications device 30 to consumers” (Col. 12, lines 53-56). “For example, data receive-tuner 13 may be built into a broadband cellular radio telephone providing full, three response option interactive functionality” (Col. 12, lines 61-63)); and means for receiving navigational data transmitted according to a GPS standard (“location sensing and TTL interface circuitry tuner 13 may be coupled to location sensing device (not shown) such as zip code location identifier for fixed RDPU units and for mobile RDPU units GPS or LORAN C receiver or cellular radio location means. Said location sensing device may be used for any locator purpose” (Col. 17, lines 50-55)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tuner of Sakurai to further comprise means for

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transmitting and receiving mobile telephone signals; and means for receiving navigational data transmitted according to a GPS standard, as taught by Reams, in order to provide interactive functionality and locator purpose.

Response to Arguments

4. Applicant's arguments with respect to claims 9-18 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Bhattacharya whose telephone number is (571) 272-7917. The examiner can normally be reached on Weekdays, 9-6, with first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on (571) 272-7922.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sb

 4/15/05
ELISEO RAMOS-FELICIANO
PATENT EXAMINER